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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,135	11/13/2003	Clair Ernest Erdman JR.	20712-0091	8186

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EXAMINER

NORMAN, MARC E

ART UNIT PAPER NUMBER

3744

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/712,135

Applicant(s)

ERDMAN, CLAIR ERNEST

Examiner

Marc E. Norman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/13/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Singh et al. (U.S. Patent application 2004/0159113 A1).

As per claim 1, Singh et al. discloses a system for monitoring an HVAC system comprising remote monitoring of an air conditioning system component (see for example paragraphs [0033], [0056], and [0057]), a remote monitoring unit 14, remote monitoring device 12 generating an alarm when the sensed condition is in a critical range (see for example paragraph [0006], lines 13-17), whereby remedial action is initiated (paragraph [0036], lines 6-14).

As per claims 2-6, Singh et al. discloses storing operating condition data, providing real-time information to the monitoring device regarding specifically identified components and operating condition information (paragraphs [0031] – [0033]).

As per claims 7 and 8, Singh et al. discloses notifying a service technician to implement corrective actions (i.e., dispatching work orders based on the alarms [paragraph [0036]]) and communicating with manufacturers (lower right of Figure 1A).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9-17 and 20-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. (U.S. Patent application 2004/0159113 A1).

As per independent claims 20 and 32, Singh et al. teaches all aspects of these claims (as already discussed above regarding claims 1-6), except the communication being one-way. Official notice is taken that simply restricting the communication of Singh et al. to a one-way communication does not patentably distinguish the claims over the prior art, since on-way communication is well-known in the art, and the system of Singh et al. is functionally capable of performing all the monitoring/alarming/initiating functions of these claims regardless of whether the communication is one-way or two-way.

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As per claims 9 and 21, Singh et al. does not specifically state that the HVAC system is a chiller. However, chiller are broadly known and used types of HVAC systems that would be an obvious type of system to monitor using the system of Singh et al. for the purpose of monitoring the efficiency of the chiller components, since the monitoring system of Singh et al. is broadly applicable to many types of systems of which a chiller is simply one potential example.

As per claims 13, 25, and 37, Singh et al. teaches monitoring compressors and condensers, which are common components of rooftop units (see for example paragraph [0057]).

As per claims 10-12, 14, 15, 22-24, 26, 27, 36, and 38, Singh et al. discloses a control panel/monitor control device 140 and communication gateway 16 for communication with remote device 12.

As per claims 16, 17, and 28, Singh et al. teaches programmable computer 140.

As per claims 29 and 30, official notice is taken that memory and disk drives are common components of computer systems such as controller 140 of Singh et al., and as such would have been obvious to one of ordinary skill in the art.

As per claim 31, Singh et al. does not specifically teach signaling means to generate a connection, but official notice is taken that such remote connection systems are old and well-known in the art remote monitoring systems and would have been obvious to one of ordinary skill in the art to apply to the system of Singh et al. for the purpose of controlling the flow of data from the local to the remote device.

As per claims 33 and 34, see discussion of respective similar claims 6 and 5, above.

As per claim 35, see discussions above regarding chillers (claim 9) and control panels (claim 10).

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. (U.S. Patent application 2004/0159113 A1) in view of Singh et al. (U.S. Patent 6,675,591 B2).

As per claims 18 and 19, U.S. Patent application 2004/0159113 A1 does not teach the non-normal/critical, time/temperature controls recited. U.S. Patent 6,675,591 B2 by the same inventors teaches sending an alarm when the control parameter is outside a normal range (above the ideal temperature), but below a critical range (below alarm limit) for a certain period of time (see Figure 6; column 10, lines 19-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine this feature with the system of the Singh et al. Application for the purpose of refining the alarm control system, since this is simply another aspect of the same general system taught by the exact same inventors.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc E. Norman whose telephone number is 571-272-4812. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MN

A handwritten signature in black ink, appearing to read 'Marc Norman', with a stylized flourish at the end.

**MARC NORMAN  
PRIMARY EXAMINER**